

REMARKS

Reconsideration and allowance of the application based on the foregoing amendments, and other reasons, are respectfully requested.

Claims 1-26 are in the application. Claims 7-25 were withdrawn from consideration by the Examiner. Claims 1-6 and 26 were rejected. The drawings filed on 20 February 2002 were objected to.

Restriction

The Examiner required restriction to one (1) of four (4) groups of inventions: I. claims 1-6 and 26 (sauna); II. claims 7-18 and 21 (infrared heater); III. claims 19-20 (method); and IV. claims 22-25 (ELF EMF power wiring); each classifiable in a different subclass. Applicants had elected, with traverse, to prosecute the Group I invention. Claims 7-25 were withdrawn from further consideration by the Examiner as being drawn to a non-elected invention.

Applicants traverse the requirement for restriction.

The Examiner has said that the inventions are distinct because they are unrelated; and that inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (citing MPEP sections 806.04 and 808.01). Since applicants really show only one embodiment, it is a given that all of the inventions are capable of use together. Ergo, the requirement for restriction should be withdrawn. Applicants urge that the inventions are not independent as required by MPEP Section 806.04.

It is further urged that MPEP Section 806.04(C) does not apply to Group III method claims either, as the apparatus of Group I can be used to practice the process of Group III. Likewise the apparatus of Groups II and IV.

Applicants also wish to note that restriction is not proper between a combination (Group I) which the Examiner has not allowed, and a sub-combination (Groups II or IV). Ex Parte Donnell, 1923 C.D. 54, 315 O.G. 398 (Commissioner of Patents 1923).

Therefore applicants urge that claims 7-25 should be reinserted, and examined.

Drawings

Applicants mailed on August 28, 2003 "new corrected drawings" (Replacement Drawings). "The new corrected drawings" were by the Examiner "required in this application because the submitted drawings were informal". "The new corrected drawings" (formal drawings bearing the legend "Replacement Sheet" in the drawing-sheets margins) were prepared by a competent patent draftsman and filed 9/2/03 (post card receipt).

The Draftsman incorporated Fig. 14 of the drawing which was on the last informal sheet, into spare space on replacement sheet 11.

Claim Rejections - 35 USC 102

Claims 1-3 were rejected under 35 USC 102(b) as being anticipated by Kyowa Denki (JP 2003051368). Reconsideration is requested.

35 USC 102(b) reads: "A person shall be entitled to a patent unless -- the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States,". Applicants' invention was filed 2/20/02. According to the Derwent sheets provided with the copy of the Japanese JP2003051368 document, it was published Feb. 21, 2003. The Japanese invention therefore was not patented or described in a printed publication more than one year prior to the instant application, nor prior to applicants' filing date, and thus does not anticipate under 35 USC 102(b) applicants' invention.

Moreover, the Japanese document does not show a sauna. All it shows in Figs. 1-5 is an infrared heater. Hence it is respectfully suggested that the Denki does not teach "a compact sauna (Figures 1-5) with infrared heaters disposed in closed proximity to the user". To argue that it does, requires a reconstruction of Denki according to applicants' invention!

The Derwent document does mention a use for the Denki heater as being in a sauna. However, it nowhere shows an appreciation for making the sauna a low-EMF (Electro-Magnetic Field) one employing "infrared source elements emitting only a low-level of extremely-low-frequency electromagnetic fields", and applicant has so amended

claim 1, and hence its dependent claims 2 and 3, to set more clearly forth applicants' contribution to the art.

Claims 1 and 2 were rejected under 35 USC 102(e) as being anticipated by Perett (2002/0046422), the Examiner stating that "Perett teaches a compact sauna 10 (Figures 1-6) with infrared heaters (22 and 68) disposed in closed proximity to the user, infrared elements are planar". Perett employs ceramic heating elements (emitters) 68, and contains no suggestions for lowering their EMF. Thus Perett does not teach a low-EMF as now clearly defined by the claims as amended.

Claim Rejections - 35 USC 103

Claim 4 was rejected under 35 USC 103(a) as being unpatentable over Kyowa Denki in view of Clark (6,142,927), the Examiner stating that Clark discloses an extremely-low-frequency electromagnetic fields, and opining that "It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an extremely-low-frequency electromagnetic fields as taught by Clark to improve performance of the sauna". Reconsideration is requested.

Initially, it should be observed, as noted above, that Denki is deficient as a reference, and that Clark does not make up for these deficiencies.

Clark is concerned with the application of particular electromagnetic radiation to the body (col. 1, lines 5-8), and not with a sauna. Thus he provides apparatus to generate particular electromagnetic waves.

Applicants, on the other hand, sought to off-set the extremely-low-frequency electromagnetic fields normally generated by infrared heaters in their operation. Clark contains no suggestion on how to cure such a problem. Moreover, applicants would not have looked to Clark to solve their problem. He was non-analogous art and thus not available to render applicants' invention obvious.

Furthermore even if it was analogous art, Clark is not available to render Applicants' invention obvious. As noted above, Clark teaches generating particular electromagnetic waves. Applicants were looking for ways to suppress indigenous EMF. Clark does not teach suppressing indigenous fields. Hence Clark's does not teach how to alter Denki to provide applicants' invention.

Claims 5-6 were rejected under 35 USC 103(a) as being unpatentable over Kyowa Denki in view of Henschenp et al (5,059,756) and further in view of Grise et al (4,485,297), the Examiner alleging that it would have been obvious "to use current flowing in opposite directions as taught by Henschenp et al and bars, stripes and conductors as taught by Grise et al to improve performance of the sauna". Reconsideration is requested.

Initially it should be observed that claims 5-6 are dependent, directly and indirectly on claim 2 dependent on claim 1, and hence allowable therewith over Denki (and over Perett).

As observed above, the Japanese Denki invention was not patented or described in a printed publication more than one year prior to the instant application, nor prior to applicants' filing date, and thus is not available to anticipate applicants' invention. Moreover, the Japanese document does not show a sauna. Hence Denki does not teach "a compact sauna (Figures 1-5) with infrared heaters disposed in closed proximity to the user".

Henschenp does, as the Examiner notes, disclose current flow through a heater in opposite directions. But he does not employ current flow in opposite directions to reduce the electromagnetic field in the area heated by the heater; he is merely concerned with interacting the emf effects of the high frequency conductors 11 and 25 so that the skin effect of the high-frequency conductor 11 is able to maintain large current flow in the high-resistance layer 13 on its surface. Henschenp heater assemblies work with alternating signals in the radio frequency range, "Most commonly, the frequency of the actuating signal is 13.56 MHz" (col. 7, lines 23-25). Thus Henschenp does not endeavor to impact the electromagnetic field in the environment about the heaters. Even if a person skilled in the sauna art had seen Henschenp (which in the ordinary course of events he wouldn't have), applicant's solution to the extremely-low frequency electromagnetic-field problem in infrared saunas would not have come to mind.

Applicants have also amended claim 5, and hence dependent claim 6, to make applicants' contribution to the art more clear. Thus these claims now require that the heater current "flows in opposite directions at any given point in time to cancel out generated extremely-low-frequency electromagnetic fields".

The EMF "canceling" effects of current flow in opposite directions may be appreciated from a consideration of section "25-9 Force Between Two Parallel Wires Carrying Current" on the attached copy of pages 440-442 of Samat's "Fundamental of Physics", fourth edition, Copyright 1966, published by Holt, Rinehart and Winston, showing in Fig. 25-15 the magnetic fields of two sets of two parallel wires with currents respectively in the same direction and in the opposite direction. The magnetic field to a side of the set of two wires with current in the same direction, is much thicker than that with the set of two wires with current in opposite directions.

The deficiencies of Denki and Henschenp are not made up by Grise et al. While Grise et al show a plurality of bars 18, a pair of longitude stripes 14, and a metallic conductor overlaying each stripe, they do not make up for the deficiencies of Denki and Henschenp by showing an EMF-safe compact sauna or infrared source elements emitting extremely-low-frequency electromagnetic fields. Thus Henschenp and Grise do not teach what the Examiner sought to modify Denki with.

Hence claims 5-6 are patentable as it was not obvious to use current flowing in opposite directions as taught by Henschenp et al to provide infrared source elements emitting extremely-low-frequency electromagnetic fields. a deficiency of Denki and Henschenp that Grise does make up for.

Claim 26 was rejected under 35 USC 103(a) as being unpatentable over Kyowa Denki in view of Henschenp, Grise et al, and Wiseman et al (6,043,471), the Examiner stating a) that Denki in view of Henschenp and Grise teaches a compact sauna with infrared heaters disposed in close proximity to the user, planar infrared elements, and protrusions 12 on the element project outwards toward the user, current flow in opposite directions , and bars stripes and metallic conductors but does not teach a current at 180 degrees out of phase; and b) that Wiseman et al discloses current flowing at 180 degrees out of phase. Reconsideration is requested.

As observed heretofore, Denki does not teach a low EMF compact sauna. Also as explained heretofore, Henschenp and Grise do not make up for the deficiencies of Denki. Nor does Wiseman.

Wiseman shows an induction heating system. He apparently employs circuits which are 180 degrees out of phase with each other. Other than teaching that circuits can

be 180 degrees out of phase with each other, he contains no suggestion for utilizing the 180 degree out-of-phase circuits to impact the ambient electromagnetic fields generated by them, let alone the extremely-low frequency electromagnetic fields required by the claim.

Moreover, claim 26 specifically requires, inter alia, that the dual infrared heaters be "in an extremely-low-frequency electro-magnetic field power wiring system for connecting an alternating current source to a load, comprising a first electrical power conductor for supplying the alternating current from the source to the heaters and emanating an extremely-low frequency electro-magnetic field when so doing, a second electrical power conductor for returning the alternating current from the heaters to the source and emanating an extremely-low-frequency electro-magnetic field when so doing, the first and second electrical power conductors being juxtaposed so that the extremely-low-frequency electro-magnetic fields when obtaining cancel each other", a limitation certainly not found in Wiseman.

Applicants submit that it would not have been obvious to one having ordinary skill in the art to use current flowing at 180 degrees out of phase as taught by Wiseman et al in an inductive heating system, to improve the performance of the sauna.

Specification

In the Specification, the second and third paragraphs on page 9 were rewritten as four (4) separate paragraphs in view of the separate labeling in the formal drawings of the two portions of each of Figs. 7 and 8 in the informal drawings.

In the Specification, the full paragraph on page 18 was rewritten to make it consistent with the showing in Fig. 2 of the drawing. The oversight is regretted.

Petition

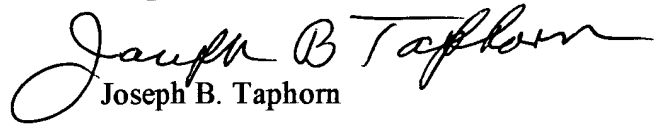
A Petition for a one-month's Extension of Time for response within the first month, is being mailed concomitantly herewith.

Conclusion

14

Wherefore applicants believe that the rejected claims are allowable, particularly as amended, that the withdrawn claims should be examined and if allowable, this application should be deemed to have been placed in condition for allowance, which favorable action at an early date is earnestly solicited.

Respectfully submitted,


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Attachment

CERTIFICATE OF MAILING - The undersigned certifies that this correspondence addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, has been deposited in the United States Postal System as first class mail with sufficient postage on October 23, 2003.

